

REMARKS

Claim 1 has been amended in accordance with claim 3 to identify the claimed composition as a deodorant composition. Claim 3 is hereby cancelled without prejudice. New claim 28 specifies that the organic solvent comprises from 60% to 97% by weight of the total liquids present, excluding any liquified volatile propellant that may be present. See page 17, lines 4 to 9; volatile propellant-containing compositions being but one form of the subject compositions, reference is made to the weight of solvent relative to total liquids present, excluding liquefied volatile propellant that may be present. Thus, it is not the intention of claim 28 that volatile propellant be a required component of the composition therein described.

In view of the remarks that follow, reconsideration and allowance of the subject claims, as hereby amended, is respectfully requested.

Pursuant to the Office Action dated October 19, 2005, claims 1, 3, 4, 7, 8, 10-15, 18, 21 and 23 were rejected under 35 U.S.C. 103(a) as unpatentable over Voss (US 3,507,796) in view of Franks et al. Claims 5, 6, 9, 16, 17, 19, 20, 22 and 24 -27 are objected to "for the reasons of record"; as to such claims, based on the removal of the art-based rejections thereof, it is believed that they would be deemed allowable if rewritten in independent form. Applicants respectfully request clarification of this point.

Claims 1, 4, 7, 8, 10-15, 18, 21 and 28 are directed to anti-microbial compositions for use on the outer surface of the human body (or on apparel worn in close proximity thereto), comprising a carrier material and a salt of a transition metal chelator comprising a solution in an organic solvent of a transition metal chelator anion and an organic cation, wherein the cation comprises a protonated or quaternized amine, other than triisopropanolamine, containing 0 to 3 hydroxyl groups per N-substituent and at least one N-substituent comprising a C1-C10 terminal hydrocarbyl group. Claim 23 is directed to a cosmetic method of inhibiting the generation of human body odour, said

method comprising the application to the outer surface of the human body (or to apparel worn in close proximity thereto) of an anti-microbial composition according to claim 1.

Formulating compositions that provide effective and long lasting deodorant protection can be difficult. The problem to be solved is not only to reduce microbial numbers on the body, but also to sustain an antimicrobial effect over time. Adding to the complexity of formulating such compositions, is the problem of obtaining compatibility of the antimicrobial agents and the vehicles in which they are contained.

Pursuant to this invention it was found that anti-microbial compositions comprising particular transition metal chelator salts not only provide compatibility with organic solvents and other components commonly found in compositions formulated for deodorant use, but also that, formulated as solutions in organic solvents, give prolonged anti-microbial activity when used on the human body (or apparel worn in close proximity thereto).

Voss is directed to detergent compositions (e.g., laundry detergents) as well as compositions used primarily as antibacterial agents. In use, the detergent compositions are combined with water to form what are referred to as "cleaning compositions".

Beginning at column 1, line 53, Voss discloses compositions that consist essentially of:

- (I) 1 to 50 parts by weight of a chelating agent selected from what was previously noted to be a relatively extensive group of materials;
- (II) 0.1 to 5 parts by weight of organic compounds which form organic cations in aqueous solution, the organic compounds being selected from a group of amine, diamine, imidazolidine, heterocycles and sulfonium compounds as therein more particularly described,
- (III) from 0 to 50 parts by weight of an alkaline buffering salt; and

(IV) from 1 to about 30 parts by weight of a zwitterionic detergent as therein more particularly described.

From such compositions, aqueous solutions of various dilutions can be prepared.

Voss further discloses that its compositions may also include other compatible detergents, and lists a variety of amine oxide compounds that can be incorporated therein. The amine oxides disclosed by Voss are solids at room temperature, with dimethyldodecylamine oxide (the lowest molecular weight oxide of those listed at column 8, lines 24 to 40) having a melting point of about 132-133°C. Like the other components of Voss' detergent compositions, these amine oxide compounds would dissolve in the large quantities of water contained in the ultimate dilutions.

Franks et al is directed to a process for making precipitated cellulose. While Franks et al discloses "dissolving cellulose in a tertiary amide oxide solvent", this solubilization of cellulose takes place, under vacuum, at elevated temperatures that, for the most part, range from 65 to 120°C. Thus, the conditions described by Franks et al. are very different from the conditions under which the detergents of Voss are used and prepared. To argue that Franks et al. provides a basis for believing that the amine oxides of Voss function as solvents for the chelator salt therein described is a tortured interpretation that ignores the true teaching of not only this patent, but that of Voss as well. Given the differences in subject matter, function and means for accomplishing their respective functions, it is respectfully submitted that Voss and Franks et al. are non-analogous references whose combination would not be suggested to one skilled in the art. Indeed, even if combined, the combination would fail to disclose the subject invention.

Voss also refers to compositions which it identifies as "antibacterial compositions". These antibacterial compositions are also aqueous dilutions. At column 10, beginning at line 43, Voss states:

Another type of composition which is part of this invention is a composition which can be used primarily as an antibacterial agent. These compositions are usually

utilized by diluting them to a point where the detergency effectiveness is considerably diminished. These compositions contain from about 1% to about 40% chelating agent, from about 0.1% to about 10% organic compound capable of forming organic cations in aqueous solution, from about 5% to about 40% alkaline buffering salt, and from about 1% to about 20% zwitterionic detergent. The solutions which are prepared using the above compositions will ordinarily contain from about 5 p.p.m. to about 200 p.p.m. chelating agent, from about 0.5 p.p.m. to about 50 p.p.m. organic cation, from about 20 p.p.m. to about 200 p.p.m. alkaline buffering salt, and from about 5 p.p.m. to about 100 p.p.m. zwitterionic detergent.

In Example IX, Voss discloses an antibacterial composition in the form of a mouthwash. Like the other "in use" compositions, the mouthwash contains a significant amount of water, i.e., in excess of 70 weight percent. Thus, while glycerine (10%) and ethyl alcohol (16.5%) are also present, far and away, the major component of the composition is water. In contrast to the subject compositions, which are directed to compositions that comprise a carrier material and a salt of a transition metal chelator comprising a solution in an organic solvent of a chelator anion and organic cation, the mouthwash exemplified by Voss illustrates what those skilled in the art would normally consider to be a solution of chelator in a solvent that is primarily water.

Moreover, the mouthwash of Example IX would not be desirable as a deodorant composition. As noted at page 5, lines 25 to page 6, line 4, of the subject application, the use of relatively high levels of water in deodorant compositions can be undesirable for numerous reasons, including for example, the fact that relatively high levels of water can cause an undesirable wet sensation on application. Additionally, low water content compositions can provide better compatibility with additional hydrophobic components commonly found in deodorants, e.g., fragrance.

It is respectfully submitted that there is nothing in Voss alone or in combination with Franks et al. that discloses or suggests the subject compositions. More particularly, there is nothing in the citations alone or in combination that discloses or suggests the use of solutions in organic solvents of the chelator salts described by the subject invention as a means of reducing malodor on the human body (or apparel worn in close proximity thereto). Applicants further note that instant claims 13 and 14

stipulate that less than 50% of water is present in the composition, excluding any volatile propellant that may be present (claim 14 expressly requiring that the ratio of other components to water is greater than 65:35). New claim 28 specifies that the organic solvent comprises from 60% to 97% by weight of the total liquids present, excluding any liquified volatile propellant that may be present.

In light of the above amendments and remarks, reconsideration and allowance of the subject claims, as hereby amended, is respectfully requested.

If a telephone conversation would be of assistance in advancing the prosecution of the present application, applicants' undersigned attorney invites the Examiner to telephone at the number provided.

Respectfully submitted,

A handwritten signature in black ink, appearing to read 'K. Klumas', is written over a horizontal line.

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